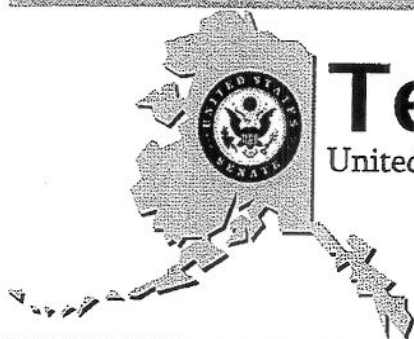


Submission Date: Feb 14, 2008

Priority: 1 of 2



Ted Stevens

United States Senator for Alaska

Please Note:

- Fill out one request form for each request
- This form (and any attachments) can be returned via:

Fax - (202) 224-2354

Mail - The Honorable Ted Stevens
United States Senate
522 Hart Senate Office Bldg.
Washington, D.C. 20510

- Requests are due by February 15, 2008.

FISCAL YEAR 2009 PROJECT REQUEST FORM

Project Name: Yerrick Creek Hydroelectric Project

Project Location: Yerrick Creek is 20 Miles west of Tok, Alaska, at Mile Post 1339 on the Alaska Highway.

Project Description (please attach additional pages as required):

APC proposes to construct a run-of-river hydroelectric project that will interconnect with the grid supplying electricity to the communities of Tetlin, Tok, Dot Lake, and Tanacross. This grid is presently wholly reliant upon diesel generation. APC is the certified utility for this area along the Alaska Highway and is within the boundaries of APC's certificate from the Regulatory Commission of Alaska. This project is called the Yerrick Creek Hydroelectric Project. The project is located approximately 20 miles west of Tok on the Alaska Highway at Milepost 1339. Although APC's existing transmission infrastructure follows the highway right-of-way past the project site, this infrastructure (conductor) will need to be upgraded to handle the load from the project. Project capacity is expected to be 2.3 megawatts (MW). Project features would include a small diversion structure, an approximately 11,000 foot long penstock, powerhouse with a single impulse turbine (Pelton or Turgo) and generator, tailrace, small substation, and transmission line to and along the Alaska Highway. Please see the attached additional information for a more complete description.

Related Appropriations Bill: EWD / Agriculture

Amount of federal funding requested for FY09: \$7,519,369

Total funding to complete this project: \$7,519,369

Number of years to fund this project: One

Matching funds from the State of Alaska: 0%

Matching funds from local and private entities:

N/A

If this project was funded in prior appropriations bills (within the last five years), list each bill and the amount funded:

N/A

Amount included in the President's FY09 Budget: N/A

Amount included in the State of Alaska FY09 Budget: N/A

☐ Check this box if state funding was sought but not provided.

List legislation that authorizes this project:

Check all that apply:

- ☐ A change in the current law is necessary in order to proceed with the project. (If so, attach language and a list of laws that need to be amended)
- ☐ Bill or report language is needed. (If so, attach requested language)

EXECUTIVE SUMMARY

Applicant

Alaska Power Company (APC), a wholly owned subsidiary of Alaska Power & Telephone Company, has been in business since 1957 providing service to Alaskan communities.

Project Title

Yerrick Creek Hydroelectric Project.

Contact

Bob Grimm, President – APC, is the key contact for this project, and can be reached at the following:

Telephone: 360-385-1733 x120
Fax Number: 360-385-7538
Address: Alaska Power Company
P.O. Box 3222
Port Townsend, WA 98368
E-mail: bob.g@aptalaska.com

Funds Requested

To construct the 2.3 MW run-of-river Yerrick Creek Hydroelectric Project, APC requests \$7,519,369 in grant funds. This project would provide hydroelectric power to the communities of Dot Lake, Tanacross, Tok, and Tetlin. These communities presently rely on diesel generation.

Target Community

The target communities that will benefit from this project are Tetlin (pop. 117), Tanacross (pop. 140), Dot Lake (pop. 19), and Tok (pop. 1,393), Alaska, as shown in Figures 1 and 2 in the Supplemental Material section. APC is applying to build a 2.3 megawatt (MW) run-of-river hydroelectric project that would connect directly to the APC transmission system that is centralized out of Tok where diesel generation facilities are located. APC presently sells power for \$0.36 per kWh in Tok and to other communities connected to Tok's closed grid. To reduce this areas use of fossil fuels and to reduce price fluctuations and air emissions associated with diesel generation, a renewable energy source is necessary. The Yerrick Creek Hydroelectric Project will be the first such project on this interior Alaska grid. Placing this hydroelectric project on the Tok grid will reduce electric rates to approximately \$0.29 per kWh. Two of the communities that would benefit from this project have large Native Alaskan populations, Tetlin 94.9%, Tanacross 88.6%.

Project Description

This 2.3 MW run-of-river hydroelectric project will be built on Yerrick Creek, which is approximately 20 miles west of Tok. Currently, the Tok grid follows the Alaska Highway over Yerrick Creek to Dot Lake, as shown in Figure 2 in the Supplemental Material section. The existing diesel generation plant in Tok will continue to supplement the grid as the hydro project is only expected to replace part of the annual load. This run-of-river hydro project will consist of a small diversion structure that will impound possibly 0.3 acres of water, approximately 11,000 feet of penstock, powerhouse with a single Impulse turbine and

generator, tailrace, small substation, and transmission line to and along the Alaska Highway. Construction would begin in the spring when snow is off the ground. The building season is short at this north latitude, so it will take two years to complete this project. This project not only will provide clean, renewable electricity, but will provide rate stabilization. The cost to maintain a hydro project is also significantly lower than diesel generation.

Project Benefits/Outcomes

- The cost to produce electricity will go from \$0.36 to \$0.29 per kWh for the grid supplying Tok, Tanacross, Dot Lake and Tetlin, a savings of approximately 20%;
- Greater reliability and cost effectiveness with hydropower versus diesel generation, while reducing air emissions, the chance for fuel spills and fluctuating electric rates due to rapidly changing and rising diesel fuel costs;
- Economic development and home building due to less expensive electricity;
- APC will have a net annual O&M savings of approximately \$1,153,200 by reducing the hours the Tok diesel generators are used, reducing their maintenance and frequency of replacement.

State Rural Development Initiatives

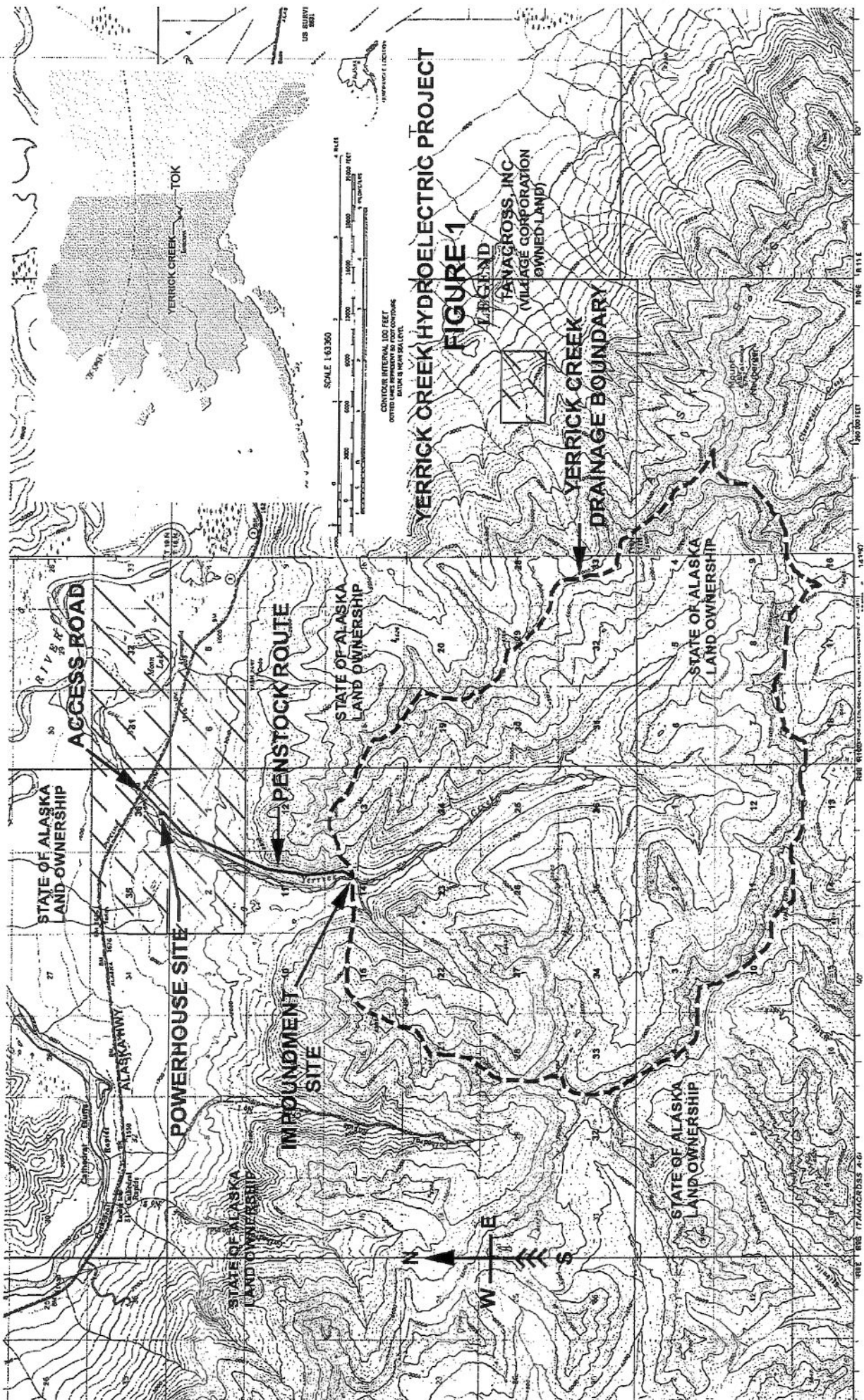
APC has been working with the Denali Commission to fund renewable and alternative energy sources throughout Alaska to reach unserved or underserved areas. Rural development has occurred in the area by upgrading/installing major water and sewer projects, and building new homes for the Alaskan Native populations, all of which use electricity.

Other Criteria

- **Economic Hardship.** Due to the high cost of gasoline, travelers to and through Tok are down 11% over 2006, impacting this tourism based economy.
- **Economic Distress.** According to the U.S. Census data, the county median household income was \$38,776, which is 75% of the State median household income of \$51,571. The per capita income for these communities is: Tetlin \$7,372; Tanacross \$9,429; Tok \$18,521; and Dot Lake \$19,406 compared to the State at \$33,761. Family poverty levels are higher in Tetlin (40%), Tanacross (22.6%), and Tok (9.5%) than the State as a whole (6.7%). Unemployment in Tanacross is 57.1%, Tetlin 46.9%, and in Tok 18%. The Denali Commission considers Tetlin and Tanacross *Distressed Communities*. The Denali Commission states that Dot Lake and Tok are distressed by 2007 standards plus/minus 3%.
- **Rurality.** All four communities are rural.

Feasibility

APC has been in the power business in Alaska since 1957, presently supplying service to 24 communities. In 2002, APC installed 35 miles of 34.5 kV transmission line on Prince of Wales Island, 20 miles in 2003, and 34 miles in 2004. APC constructed three hydroelectric projects and is currently constructing another with one more next year. APC has managed other federal grants and is capable of handling all phases of this project. Please see Project Management, under Project Overview, for more details about APCs capabilities.



Submission Date: Feb 14, 2008

Priority: 2 of 2



Ted Stevens

United States Senator for Alaska

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United States Senate
522 Hart Senate Office Bldg.
Washington, D.C. 20510

- Requests are due by February 15, 2008.

FISCAL YEAR 2009 PROJECT REQUEST FORM

Project Name: North Prince of Wales Island Intertie Project

Project Location: Naukati Bay and Coffman Cove, Prince of Wales Island

Project Description (please attach additional pages as required):

To construct the North Prince of Wales Intertie Project, APC requests \$5,999,606 in grant funds to install a total of 48 miles of 34.5 kV overhead transmission line to the communities of Coffman Cove and Naukati Bay. This extension will commence from the Control Lake area of the existing overhead 34.5 kV line, between Klawock and Thorne Bay, as shown in Figure 2. This project would not only provide the communities of Coffman Cove and Naukati Bay with a significant reduction in the cost of electricity (51% and 60% savings respectively), but would also receive 'green' energy from the Black Bear Lake Hydro Project (BBL Hydro) and the South Fork Hydro Project (SF Hydro), as indicated on Figure 2. The total line is to be 48 miles (Coffman Cove = 37 miles; Naukati Bay = 11 miles) of overhead 4/0 ACSR three-phase 34.5 kV line with a 1/0 ACSR neutral conductor on single pole wood structures. Project benefits: reduction of energy costs from \$0.39 and \$0.4843 per kWh to \$0.1925 per kWh; greater reliability and cost effectiveness with hydropower versus diesel generation, while reducing air emissions, the chance for fuel spills and fluctuating electric rates due to rapidly changing diesel fuel costs; APC will have a net annual O&M savings of approximately \$67,500.

Related Appropriations Bill: EWD / Agriculture

Amount of federal funding requested for FY09: \$5,999,606

Total funding to complete this project: \$5,999,606

Number of years to fund this project: One

Matching funds from the State of Alaska: 0%

Matching funds from local and private entities:

N/A

If this project was funded in prior appropriations bills (within the last five years), list each bill and the amount funded:

N/A

Amount included in the President's FY09 Budget: N/A

Amount included in the State of Alaska FY09 Budget: N/A

☐ Check this box if state funding was sought but not provided.

List legislation that authorizes this project:

Check all that apply:

- ☐ A change in the current law is necessary in order to proceed with the project. (If so, attach language and a list of laws that need to be amended)
- ☐ Bill or report language is needed. (If so, attach requested language)

EXECUTIVE SUMMARY

Applicant

Alaska Power Company (APC), a wholly owned subsidiary of Alaska Power & Telephone Company, has been in business since 1957 providing service to Alaskan communities.

Project Title

North Prince of Wales Island Intertie Project.

Contact

President – APC, is the key contact for this project, and can be reached at the following:

Address: Alaska Power Company
P.O. Box 3222
Port Townsend, WA 98368

Funds Requested

To construct the North Prince of Wales Intertie Project, APC requests \$5,999,606 in grant funds to install a total of 48 miles of 34.5 kV overhead transmission line to the communities of Coffman Cove and Naukati Bay. This extension will commence from the Control Lake area of the existing overhead 34.5 kV line, between Klawock and Thorne Bay, as shown in Figure 2.

Target Community

Both Coffman Cove and Naukati Bay are presently served by their own isolated diesel generation plants that APC operates and maintains. These communities are on Prince of Wales Island (POW) in Southeast Alaska, as shown in Figure 1. Coffman Cove and Naukati Bay presently pay about \$0.39 and \$0.4843 per kWh, respectively. APC's present rate in southern POW is about \$0.1925 per kWh on the APC grid which will reduce Coffman Cove and Naukati Bay's rates by 51% and 60% respectively.

Project Description

The North Prince of Wales Island Intertie Project is a line extension of 48 miles that would provide the communities of Coffman Cove and Naukati Bay with not only a significant reduction in the cost of electricity (51% and 60% savings respectively), but would also receive 'green' energy from the Black Bear Lake Hydro Project (BBL Hydro) and the South Fork Hydro Project (SF Hydro), as indicated on Figure 2. The total line is to be 48 miles (Coffman Cove = 37 miles; Naukati Bay = 11 miles) of overhead 4/0 ACSR three-phase 34.5 kV line with a 1/0 ACSR neutral conductor on single pole wood structures. This line extension will come off the existing 34.5 kV line from between Klawock and Thorne Bay, near Control Lake; the route is shown on Figure 2.

Project Benefits/Outcomes

- Reduction of energy costs from \$0.39 and \$0.4843 per kWh to \$0.1925 per kWh., a savings to the customer of approximately 51% and 60% respectively;
- Greater reliability and cost effectiveness with hydropower versus diesel generation, while reducing air emissions, the chance for fuel spills and fluctuating electric rates due to rapidly changing diesel fuel costs;
- Economic development and home building due to less expensive electricity;
- APC will have a net annual O&M savings of approximately \$67,500 by eliminating the hours the two isolated diesel generators are used, reducing their maintenance and frequency of replacement.

State Rural Development Initiatives

APC has been working with the Denali Commission to fund renewable and alternative energy sources throughout Alaska to reach unserved or underserved areas. The Southeast Conference is the regional development organization (ARDOR) for Southeast Alaska, and has been designated as an Economic Development District by the U.S. Economic Development Administration. The ARDOR supports this project (letter enclosed).

Other Criteria

- **Economic Hardship.** Because of their isolated location and economic downturn due to the "Roadless Initiative" impacting the logging industry, these communities are economically depressed and are unable to reduce the cost of electricity and are struggling to make an economic comeback.
- **Economic Distress.** Coffman Cove and Naukati Bay are both listed on the Denali Commissions 2007 list of distressed communities and have unemployment rates of 10.5% and 16.3% respectively.
- **Rurality.** Both communities are rural with small populations.

Feasibility

APC has the ability to perform the goals set out in this application having been in the power business in Alaska since 1957, supplying service to 24 communities, as shown in Figure 3 – Service Areas of AP&T (the Parent company). APC routinely installs 34.5 kV transmission lines throughout its service areas. In 2000-2001 APC installed 35 miles of 34.5 kV line on Prince of Wales Island. This included staking, brushing, boring holes, placing poles, stringing the conductor, and installing all other appurtenances. This was all accomplished with APC's personnel. Starting in 2002, APC started installing another 43 miles of 34.5 kV line on Prince of Wales Island. In 2003, APC crews upgraded 6 miles of 19.9 kV single phase line to 3 phase 34.5 kV. In 2003-2004, APC crews built 7 miles of new 34.5 kV 3-phase transmission line towards Hollis, 3.5 miles of 12.47 kV 3-phase distribution line towards Hollis, and upgraded 3.6 miles of 7.2 kV single-phase line to 12.47 kV 3-phase distribution towards Hollis. In 2004-2005, APC crews built 22 miles of 34.5 kV transmission line to Hydaburg, installed a 750 kV substation at Hydaburg, and installed a 300 kV pole-mounted step-down transformer bank for Hollis. In 2005, the crew also installed a 750 kV substation in Thorne Bay and built 1 mile of 3-phase 4.16 kV distribution in Thorne Bay. APC constructed three hydroelectric projects and has permitted and licensed one more.

History of Intra Island Electrical System

First step was in 1988 when the State of Alaska built the transmission line from Klawock to Craig. This portion of the system was funded entirely by the State of Alaska in the amount of \$660,000.

In 1995, AP&T built the 4.5 MW Black Bear Lake Hydroelectric Project and the necessary transmission to connect the project with Klawock. This was funded by AP&T in the amount of \$12 million.

In 1996, AP&T procured a \$300,000 grant from the State of Alaska and a \$1.2 million loan from the State to extend the system to the City of Thorne Bay and the USDOE assisted with a \$947,000 grant to further extend the system to connect the Village of Kasaan. This portion of the Intra Island system was commissioned in 2001.

In 2002, AP&T procured \$2.9 million grant from USDOE to extend the Intra Island Transmission System from Klawock to Hollis and Hydaburg. These extensions were completed in 2005 and 2006.

In 2005 and 2006, it was necessary to add hydropower capacity to the Intra Island grid, so the South Fork Hydroelectric Project was constructed. The 2 MW project was funded with a loan from the State for \$1.6 million, a grant by the Denali Commission for \$1.9 million with the balance invested by AP&T.

AP&T is now on behalf of the community of Naukati Bay and Coffman Cove requesting further grant assistance to extend the facilities to connect those communities to the system. The request is for \$5,999,606 million to construct 48 miles of 35 kV transmission line to connect Naukati Bay and Coffman Cove to the existing transmission system at Control Lake, which is between Klawock and Thorne Bay.

Funding Breakdown by Source:

Federal	\$ 5.7
Non-Federal	<u>\$15.8</u>
Total	\$21.5

If the request for an additional \$6 million is successful, the funding by Source would be:

Federal	\$ 11.7
Non-Federal	<u>\$15.8</u>
Total	\$27.5

This results in a non-federal match of approximately 60%.

Attached are letters of support from Southeast Conference, Coffman Cove, and Naukati Bay.

FIGURE 1
PROJECT LOCATION

